

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Stephen L. Hutcherson and Josephine M. Glover
Serial No.: Not yet assigned
Confirmation No.: Not yet assigned
Filed: Herewith
For: IMMUNE STIMULATION BY PHOSPHOROTHIOATE
OLIGONUCLEOTIDE ANALOGS

Examiner: Not yet assigned
Art Unit: 1635

MAIL STOP PATENT APPLICATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT FILED PURSUANT TO THE DUTY OF
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed after the filing of a Request for Continued Examination and before substantive first action.

No fee or certification is required.

Information Cited

The applicant would like to bring to the Examiner's attention the following co-pending application that may contain subject matter related to this application. Copies were enclosed in the parent application:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>
08/386,063	Feb. 7, 1995	Krieg et al.
08/738,652	Oct. 30, 1996	Krieg et al.
09/337,619	Jun. 21, 1999	Krieg et al.
09/669,187	Sept. 9, 2000	Krieg et al.
09/630,319	Jul. 31, 2000	Krieg et al.
09/629,477	Jul. 31, 2000	Krieg et al.
09/768,012	Jan. 22, 2001	McCluskie et. al.
09/355,254	Feb. 22, 2000	Wagner et al.

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>
08/467,930	Jun. 6, 1995	Hutcherson et. al.
08/712,135	Sept. 11, 1996	Hutcherson et. al.
09/241,653	Feb. 2, 1999	Wagner et. al.
09/316,199	May 21, 1999	McCluskie et. al.
09/337,584	Jun. 21, 1999	Krieg et. al.
09/337,893	Jun. 21, 1999	Krieg
09/337,636	Jun. 21, 1999	Krieg
09/361,575	Jul. 27, 1999	Krieg
09/415,142	Oct. 9, 1999	Krieg et. al.
09/559,140	Apr. 27, 2000	Noll et. al.
09/655,319	Sept. 5, 2000	Krieg et. al.
09/672,126	Sept. 27, 2000	Hartmann et. al.
09/776,479	Feb. 1, 2001	Bratzler et. al.
09/786,436	Sept. 3, 1999	Wagner et. al.
09/800,266	Mar. 5, 2001	Petersen et. al.
09/801,839	Mar. 8, 2001	Bratzler et. al.
09/818,918	Mar. 27, 2001	Krieg et. al.
09/824,468	Apr. 2, 2001	Kreig et. al.
09/888,326	Jun. 22, 2001	Weiner et. al.
09/895,007	Jun. 28, 2001	Schetter et. al.
09/920,313	Aug. 8, 2001	Peterson et. al.
09/931,583	Aug. 16, 2001	Krieg et. al.
09/949,194	Sept. 7, 2001	Peterson et. al.
09/954,987	Sept. 17, 2001	Bauer et. al.
09/965,101	Sept. 26, 2001	Davis et. al.
10/017,995	Dec.14, 2001	Bratzler
10/023,909	Dec.18, 2001	Davis et. al.
10/112,653	Mar. 29, 2002	Krieg et. al.
10/161,229	Jun. 3, 2002	Krieg et. al.
10/187,489	Jul. 2, 2002	Krieg et. al.
10/224,523	Aug. 8, 2002	Krieg et. al.
10/272,502	Oct.15, 2002	Krieg et. al.
10/300,247	Nov. 20, 2002	Davis et. al.
10/306,522	Nov. 20, 2002	Krieg et. al.
10/314,578	Dec. 9, 2002	Krieg et. al.
10/382,822	Mar. 6, 2003	Krieg et. al.
10/140,013	May 6, 2002	Schetter et. al.
10/212,133	Aug. 1, 2002	Lipford et. al.
10/265,072	Oct. 5, 2002	Lipford
10/373,381	Feb. 24, 2003	Wagner et. al.
10/407,952	Apr. 4, 2003	Lipford et. al.

REMARKS

It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

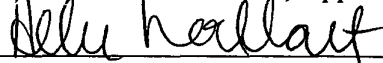
By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

Hutcherson and Glover, Applicants



By: Helen C. Lockhart, Reg. No. 39,248
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210
Telephone: (617) 720-3500
Representative for Applicants

Attorney's Docket No.: C01037.70049.US
Date: August 18, 2003
xNDDx

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	1	of	9				

U.S. PATENT DOCUMENTS

Examiner's Initials†	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	*A1	3,906,092		Hilleman et. al.	11-28-1996
	*A2	4,469,863		Ts'o et. al.	11-27-1996
	*A3	4,956,296		Fahnestock	11-26-1996
	*A4	5,023,243		Tullis	08-06-1998
	*A5	5,234,811		Beutler et. al.	08-05-1998
	*A6	5,248,670		Draper et. al.	08-04-1998
	*A7	5,457,189		Crooke et. al.	08-03-1998
	*A8	5,491,088	B1	Hellstrom et al.	02/13/1996
	*A9	5,506,212		Hoke et. al.	08-02-1998
	*A10	5,514,577		Draper	08-01-1998
	*A11	5,565,203	B1	Glück et al.	10/15/1996
	*A12	5,576,208		Monia et. al.	07-31-1998
	*A13	5,582,986		Monia et. al.	07-30-1998
	*A14	5,585,479		Hoke et. al.	07-29-1998
	*A15	5,589,466	B1	Felgner et al.	12/31/1996
	*A16	5,591,721	B1	Agrawal et al.	01/07/1997
	*A17	5,599,797	B1	Cook et al.	02/04/1997
	*A18	5,663,153		Hutcherson et al.	09-02-1997
	*A19	5,679,647	B1	Carson et al.	10/21/1997
	*A20	5,723,130	B1	Hancock et al.	03/03/1998
	*A21	5,723,335	B1	Hutcherson et al.	03/03/1998
	*A22	5,736,524	B1	Content et al.	04/07/1998
	*A23	5,756,097	B1	Landucci et al.	05/26/1998
	*A24	5,780,448	B1	Davis	07/14/1998
	*A25	5,786,189		Locht et. al.	07-28-1998
	*A26	5,804,566	B1	Carson et al.	09/08/1998
	*A27	5,837,243	B1	Deo et al.	11/17/1998
	*A28	5,849,719		Carson	11-15-1998
	*A29	5,976,567	B1	Wheeler et al.	11/02/1999
	*A30	6,030,955		Stein et. al.	02-29-2000
	*A31	6,194,388		Krieg et. al.	02-27-2001
	*A32	6,207,646		Krieg et. al.	03-27-2001

FOREIGN PATENT DOCUMENTS

Examiner's Initials†	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-YY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	*B1	EP	EP 0 302 758			03-00-1994	
	*B2	EP	EP 0 468 520			01-00-1992	
	*B3	EP	EP 0 092 574			11-00-1983	
	*B4	WO	WO 91/12811			09-00-1991	

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US			
				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned			
				APPLICANT: Hutcherson and Glover					
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned			
Sheet	2	of	9						

FOREIGN PATENT DOCUMENTS (continued)

	*B5	WO	WO 92/03456			03-00-1992	
	*B6	WO	WO 92/18522			10-00-1992	
	*B7	WO	WO 92/21353			12-00-1992	
	*B8	WO	WO 94/19945			09-00-1994	
	*B9	WO	WO 95/05853			03-00-1995	
	*B10	WO	WO 95/26204			10-00-1995	
	*B11	WO	WO 96/02555			02-00-1996	
	*B12	WO	WO 96/35782			11-00-1996	
	*B13	WO	WO 97/28259			08-00-1997	
	*B14	WO	WO 98/14210			04-00-1998	
	*B15	WO	WO 98/18810			05-00-1998	
	*B16	WO	WO 98/37919			09-00-1998	
	*B17	WO	WO 98/40100			09-00-1998	
	*B18	WO	WO 98/52581			11-00-1998	
	*B19	WO	98/16247	A1		04-23-1998	
	*B20	WO	98/32462	A1		07-30-1998	
	*B21	WO	98/55495	A2		12-10-1998	
	*B22	WO	98/55609	A1		12-10-1998	
	*B23	WO	99/55743	A1		11-04-1999	
	*B24	WO	01/02007	A1		01-11-2001	
	*B25	WO	01/12223	A2		02-22-2001	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials†	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	*C1	ABKEN et. al., "Four cell-secreted cytokines act synergistically to maintain long term proliferation of human B cell lines in vitro", J. of Immunol., 149(8):2785-2795 (1992)	
	*C2	ADYA et. al., "Expansion of CREB's DNA recognition specificity by Tax results from interaction with Ala-Ala-Arg at positions 282-284 near the conserved DNA-binding domain of CREB", Proc. Natl. Acad. Sci., USA 91(12):5642-6, (1994)	
	*C3	AGGARWAL et. al., "Cell-surface-associated nucleic acid tumorigenic cells made visible with platinum-pyrimidine complexes by electron microscopy", Proc. Natl. Acad. Sci. USA 72(3):928-32	
	*C4	ANFOSSI et. al., PNAS, 86(9):3379-93 (1989)	
	*C5	ANGIER, "Microbe DNA seen as alien by immune cells", N., New York Times 4/11/95	
	*C6	ARANY et. al., Cell, 77(6):799-800 (1994)	
	*C7	ARIAS et. al., "Activation of cAMP and mitogen responsive genes relies on a common nuclear factor", Nature 370:226-9 (1994)	
	*C8	ASIEDU et. al., "Binding of AP-1/CREB proteins and of MDBP to contiguous sites downstream of the human TGF-β1 gene", Biochim Biophys. Acta., 1219(1):55-63 (1994)	
	*C9	AZAD et. al., "Antiviral activity of a phosphorothioate oligonucleotide complementary to RNA of the human cytomegalovirus major immediate-early region", Antimicrobial Agents and Chemotherapy, 37:1945-1954, (1993)	
	*C10	AZUMA et. al., "Immunological properties of muramyl dipeptides (MDP) and related synthetic compounds", Kekkaku, 67(9):625-631, (45-55) 1992	
	*C11	BALLAS et. al., "NK1.1 ⁺ Thymocytes: Adult murine CD4 ⁺ , CD8 ⁺ thymocytes contain an NK1.1 ⁺ , CD3 ⁺ , CD5 ^{hi} , CD44 ^{hi} , TCR-Vβ8 ⁺ subset", J. Immunol., 145(4):1039-45, 1990	
	*C12	BALLAS et. al., "Induction of NK activity in murine and human cells by CpG motifs in oligodeoxynucleotides and bacterial DNA", J Immunol 157(5):1840-5, 1996	

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	3	of	9				

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C13	BALLAS et. al., "Lympholine-activated killer cells", J. Immunol., 150(1):17-30, 1993		
*C14	BAYEVER E., "Systemic administration of a phosphorothioate oligonucleotide with a sequence complementary to p53 for acute myelogenous leukemia and myelodysplastic syndrome: initial results of a phase I trial", Antisense Res. & Dev. (1993), 3:383-390		
*C15	BEAUCAGE et. al., Tetrahedron Lett., 22(20):1859-62, 1981		
*C16	BENNETT et. al., "DNA binding to human leukocytes", J Clin Invest 76(6):2182-90, 1985		
*C17	BERG et. al., "Interleukin-10 is a central regulator of the response to LPS in murine models of endotoxin shock and the Shwartzman reaction but not endotoxin tolerance", J Clin Invest 96(5):2339-47, 1995		
*C18	BICKEL et. al., J. Dental. Res., 75(11):1827-34, Biosis Abstract, 1996		
*C19	BLANCHARD et. al., "Interferon- γ induction by lipopolysaccharide: dependence on interleukin 2 and macrophages", J Immunol 136(3):963-70, 1986		
*C20	BLAXTER et. al., "Genes expressed in Brugia malayi infective third stage larvae", Mol. and Biochem. Parasitology, 77:77-93		
*C21	BOGGS et. al., "Characterization and modulation of immune stimulation by modified oligonucleotides", Antisense Nucleic Acid Drug Dev 7(5):461-71, Oct 1997.		
*C22	BRANDA et. al., "Amplification of antibody production by phosphorothioate oligodeoxynucleotides", J. Lab Clin Med 128(3):329-38, 1996		
*C23	BRISKIN et. al., "Lipopolysaccharide-unresponsive mutant pre-B-cell lines blocked in NF- κ B activation", Mol Cell Biol 10(1):422-5, 1990		
*C24	CHACE et. al., "Regulation of differentiation in CD5 ⁺ and conventional B cells", Clinical Immunology and Immunopathology, (1993), 68(3):327-332		
*C25	CHANG et. al., "The palindromic series I repeats in the simian cytomegalovirus major immediate-early promoter behave as both strong basal enhancers and cyclic AMP response elements", J Virol 64(1):264-77, 1990		
*C26	CHU et. al., "CpG oligodeoxynucleotides act as adjuvants that switch on T helper 1 (Th1) immunity", J Exp Med 186(10):1623-31, 17 1997		
*C27	COGGSWELL et. al., "NF- κ B regulates IL-1 β transcription through a consensus NF- κ B binding site and a nonconsensus CFR-like site", J. Immunol., 153(2):712-23, 1994		
*C28	CONSTANT et. al., "Stimulation of human $\gamma\delta$ T cells by nonpeptidic mycobacterial ligands", Science, 264:267-70, 1994		
*C29	COWDERY et. al., "Bacterial DNA induces NK cells to produce IFN- γ in vivo and increases the toxicity of lipopolysaccharides", J Immunol 156(12):4570-5, 15 1996		
*C30	COWSERT et. al., "In vitro evaluation of phosphorothioate oligonucleotides targeted to the E2 mRNA of papillomavirus: potential treatment of genital warts", Antimicrobial Agents and Chemotherapy, 171-177 (1993)		
*C31	COX et. al., "An ATF/CREB binding motif is required for aberrant constitutive expression of the MHC class II DR α promoter and activation by SV40 T-antigen", Nucleic Acids Res., 20(18):4881-7, 1992		
*C32	CROOKE et. al., Toxicol. & Appln. Pharmacol., 140(1):85-93 Biosis Abstract, 1996		
*C33	CROSBY et. al., "The early response gene NGFI-C encodes a zinc finger transcriptional activator and is a member of the GCGGGGGcG (GSG) element-binding protein family", Mol. Cell. Biol., 11(8):3835-41, 1991		
*C34	CRYSTAL R., "Transfer of genes to humans: Early lessons and obstacles to success" Science, Vol. 270, pp. 404-410, 1995		
*C35	D'ANDREA et. al., "Interleukin 10 (IL-10) inhibits human lymphocyte interferon γ -production by suppressing natural killer cell stimulatory factor/IL-2 synthesis in accessory cells", J Exp Med 178(3):1041-8, 1993		
*C36	de GROOT et. al., "Hormone control of gene expression: multiplicity and versatility of cyclic adenosine 3',5'-monophosphate-responsive nuclear regulators", Mol. Endocrinol., 7(2):145-53, 1993		
*C37	DEFRANCO et. al., Frequency of B lymphocytes responsive to anti-immunoglobulin", J. Exp. Med., 155(5):1523-36, 1982		
*C38	DIGNAM et. al., "Accurate transcription initiation by RNA polymerase II in a soluble extract from isolated mammalian nuclei", Nucleic. Acids. Res., 11(5):1475-89, 1983		
*C39	DU et. al., "An ATF/CREB binding site protein is required for virus induction of the human interferon β gene", Proc. Natl. Acad. Sci. USA, 89(6):2150-4, 1992		
*C40	DU et. al., "Mechanisms of transcriptional synergism between distinct virus-inducible enhancer elements", Cell, 74(5):887-98, 1993		
*C41	ENGLISCH et. al., "Chemically modified oligonucleotides as probes and inhibitors", Angew. Chem. Int. Ed. Engl., 30:613-629, 1991		
*C42	ERB et. al., "Infection of mice with mycobacterium bovis-Bacillus Calmette-Guerin (BCG) suppresses allergen-induced airway eosinophilia", J Exp Med 187(4):561-9, 16 Feb 1998		
*C43	ESKELINEN et. al., "Optimum treatment of genital warts", Drugs 34(5):599-603 (1987)		

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned			
				APPLICANT: Hutcherson and Glover					
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned			
Sheet	4	of	9						

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C44	ETLINGER, "Carrier sequence selection -- one key to successful vaccines", Immunology Today, 13(2):52-55, 1992		
*C45	EWEL et. al., "Polyinosinic-polycytidylic acid complexed with poly-L-lysine and carboxymethylcellulose in combination with interleukin-2 in patients with cancer: Clinical and immunological effects", Cancer Res., 52(11):3005-10, 1992		
*C46	FELDBUSH et. al., "Lymphokine-like activity of 8-mercaptoguanosine: induction of T and B cell differentiation", J. Immunol., 134(5):3204-11, 1985		
*C47	FERRERI et. al., "The cAmp-regulated transcription factor CREB interacts with a component of the TFIID complex", Proc. Natl. Acad. Sci. USA, 91(4):1210-3, 1994		
*C48	FOX R.I., "Mechanism of Action of hydroxychloroquine as an antiheumatic drug", Seminars in Arthritis and Rheumatism 23(2 Supp 1):82-91 (1993) (same as) Chem. Abstracts 120(15):182630 (1994)		
*C49	GAFFNEY et. al., "Large-scale oligonucleotide synthesis by the H-phosphonate method", Tetrahedron Letters 29(22):2619-22, 1988		
*C50	GAO et. al., "Phosphorothioate oligonucleotides are inhibitors of human DNA polymerases and Rnase H: implications for antisense technology", Mol Pharmacol. 41(2):223-229 (1992)		
*C51	GAREGG et. al., "Nucleoside H-phosphonates. III. Chemical synthesis of oligodeoxyribonucleotides by the hydrogenphosphonate approach", Tetrahedron Letters 27(34):4051-54, 1986		
*C52	GAREGG et. al., "Nucleoside H-phosphonates. IV. Automated solid phase synthesis of oligoribonucleotides by the hydrogenphosphonate approach", Tetrahedron Letters 27(34):4055-58, 1986		
*C53	GOODCHILD, J., "Conjugates of oligonucleotides and modified oligonucleotides: A review of their synthesis and properties", Bioconjug Chem., 1(3):165-87, 1990		
*C54	GOODMAN, MG, "Mechanism of synergy between T cell signals and C8-substituted guanine nucleosides in humoral immunity: B lymphotropic cytokines induce responsiveness to 8-mercaptoguanosine", J. Immunol., 136(9):3335-40, 1986		
*C55	GRAY et. al., "Antisense DNA inhibition of tumor growth induced by c-Ha-ras oncogene in nude mice", Cancer Res. 53(3):577-80, 1993		
*C56	GURA, T., Science (1995), 270:575-576		
*C57	HADDEN, J. et. al., "Immunomodulation", TIPS, (1993), 141:169-174		
*C58	HADDEN, J. et. al., "Immunopharmacology: Immunomodulation and Immunotherapy", JAMA, (1992) 268:20:2964-2969		
*C59	HALPERN, M.D. et. al., "Bacterial DNA induces murine interferon- γ production by stimulation of interleukin-12 and tumor necrosis factor- α ", Cell Immunol 167(1):72-8, 1996		
*C60	HATZFELD, J., "Release of early human hematopoietic progenitors from quiescence by antisense transforming growth factor β 1 or Rb oligonucleotides", J. Exp. Med., (1991) 174:925-929		
*C61	HIGHFIELD PE, "Sepsis: The more, the murkier", Biotechnology, 12:828, (1994)		
*C62	HIMES et. al., "HTLV-1 tax activation of the GM-CSF and G-CSF promoters requires the interaction of NF- κ B with other transcription factor families", Oncogene 8(12):3189-97, 1993		
*C63	HOEFFLER et. al., "Identification of multiple nuclear factors that interact with cyclic adenosine 3',5'-monophosphate response element-binding protein and activating transcription factor-2 by protein-protein interactions", Mol Endocrinol 5(2):256-66, 1991		
*C64	HUANG et. al., "Promoter activity of the proliferating-cell nuclear antigen gene is associated with inducible CRE-binding proteins in interleukin 2-stimulated T lymphocytes", Mol. Cell. Biol., 14(6):4233-43, 1994		
*C65	HUNTER et. al., "Hypergammaglobulinemia and erythrocyte autoantibody complicate enzyme immunoassay of antimalarial antibody", J. Immunoassay 2(2):99-108, 1981		
*C66	IGUCHI-ARIGA, S.M. and SHAFFNER W., "CpG methylation of the cAMP-responsive enhancer/promoter sequence TGACGTCA abolishes specific factor binding as well as transcriptional activation", Genes Dev 3(5):612-9, 1989		
*C67	ISHIKAWA et. al., "IFN induction and associated changes in splenic leukocyte distribution", J Immunol 150(9):3713-27, 1993		
*C68	IVERSON et. al., Anti-Cancer Drug Design 6:531-8, 1991		
*C69	IVERSON et. al., Antisense Research and Development, "Pharmacokinetics of an antisense phosphorothioate oligodeoxynucleotide against rev from human immunodeficiency virus type I in the adult mail rat following single injections and continuous infusion", 4:43-52 (1994)		
*C70	JAKWAY et. al., "Growth regulation of the B lymphoma cell line WEHI-231 by anti-immunoglobulin, lipopolysaccharide, and other bacterial products", J Immunol 137(7):2225-31, 1986		

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	5	of	9				

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C71	JAMES et. al., "The influence of adjuvant on induction of protective immunity by a non-living vaccine against schistosomiasis", J Immunol., 140(8):2753-9 (1988)		
*C72	JAROSZEWSKI, J.W. and COHEN, J.S., "Cellular uptake of antisense oligodeoxynucleotides", Adv Drug Delivery Rev 6(3):235-50, 1991		
*C73	KATAOKA et. al., "Antitumor activity of synthetic oligonucleotides with sequences from cDNA encoding proteins of Mycobacterium bovis BCG", Jpn. J. Cancer Res., 83:244-247 (1992)		
*C74	KIMURA, Y. et. al., "Binding of oligoguanylate to scavenger receptors is required for oligonucleotides to augment NK cell activity and induces IFN", J. Biochem., 116(5):991-994, 1994		
*C75	KLINE et. al., "CpG motif oligonucleotides are effective in prevention of eosinophilic inflammation in a murine model of asthma", J Invest Med 44(7):380A, 1996 ABSTRACT		
*C76	KLINE et. al., "Immune redirection by CpG oligonucleotides: Conversion of a Th2 response to a Th1 response in a murine model of asthma", J Invest Med 45(3):282A, 1997 ABSTRACT		
*C77	KLINE et. al., "CpG oligonucleotides can reverse as well as prevent Th2-mediated inflammation in a murine model of asthma" J Invest Med 45(7):298A, 1997 ABSTRACT		
*C78	KLINMAN et. al., "Development of the autoimmune B cell repertoire in MRL-lpr/lpr mice", Immunol., 144(2):506-11, 1990		
*C79	KLINMAN et. al., "CpG motifs present in bacterial DNA rapidly induce lymphocytes to secrete interleukin 6, interleukin 12, and interferon", Proc Natl Acad Sci USA 93(7):2879-83, 1996		
*C80	KOO et. al., "Activation of murine natural killer cells and macrophages by 8-bromoguanosine", J. Immunol. 140(9):3249-52, 1988		
*C81	KRAJEWSKI et. al., "A monomeric derivative of the cellular transcription factor CREB functions as a constitutive activator", Mol. Cell. Biol., 14(11):7204-10, 1994		
*C82	KRIEG, A.M. et. al., "Uptake of oligodeoxyribonucleotides by lymphoid cells is heterogeneous and inducible", Antisense Res Dev 1(2):161-71, Summer 1991		
*C83	KRIEG, A.M. et. al., "Oligodeoxynucleotide modifications determine the magnitude of B cell stimulation by CpG motifs", Antisense Nucleic Acid Drug Dev 6(2):133-9, Summer 1996.		
*C84	KRIEG, A.M. et. al., "Modification of antisense phosphodiester oligodeoxynucleotides by a 5' cholesteryl moiety increases cellular association and improves efficacy", Proc. Natl. Acad. Sci., (1993), 90:1048-1052		
*C85	KRIEG, A.M. et. al., "CpG DNA: A pathogenic factor in systemic lupus erythematosus?", J. Clin. Immunol., 15(6):284-292, 1995		
*C86	KRIEG, A.M. et. al., "Phosphorothioate oligodeoxynucleotides: antisense or anti-protein?", Antisense Res. Dev., 5:241, 1995		
*C87	KRIEG, A.M. et. al., "Leukocyte stimulation by oligodeoxynucleotides", Applied Antisense Oligonucleotide Technology, 431-448, 1998		
*C88	KRIEG, A.M. et. al., "The role of CpG dinucleotides in DNA vaccines", Trends in Microbiology, 6:23-27, 1998.		
*C89	KRIEG, A.M., "An innate immune defense mechanism based on the recognition of CpG motifs in microbial DNA", J Lab Clin Med 128(2):128-33, 1996		
*C90	KRIEG et. al., "CpG motifs in bacterial DNA trigger direct B-cell activation", Nature 374:546-549 (1995)		
*C91	KROWN, S.E., "Interferons and interferon inducers in cancer treatment", Semin Oncol., 13(2):207-17, 1986		
*C92	KUPPER et. al., "Interleukin 1 binds to specific receptors on human keratinocytes and induces granulocytes macrophage colony-stimulating factor mRNA and protein", J. Clin. Invest., 82:1787-1792 (1988)		
*C93	KWOK et. al., "Nuclear protein CBP is a coactivator for the transcription factor CREB", Nature, 370:223-6, 1994		
*C94	LAGRANGE et. al., "Immune responses directed against infectious and parasitic agents", The Principal Types of Immune Responses, 464-502		
*C95	LEE et. al., "Transcriptional regulation by CREB and its relatives", Biochim Biophys Acta, 1174(3):221-33, 1993		
*C96	LEIBSON et. al., "B cell helper factors: I. Requirement for both interleukin 2 and another 40,000 mol wt factor", J. Exp. Med., 154(5):1681-93, 1981		
*C97	LEONARD et. al., "Conformation of guanine-8oxadenine base pairs in the crystal structure of d(CGCGAATT(O8A)GCG)", Biochemistry, 31(36):8415-8420, 1992		
*C98	LERNER et. al., "Membrane-associated DNA in the cytoplasm of diploid human lymphocytes", Proc. Natl. Acad. Sci. USA, 68(6):1212-6, 1971		
*C99	LIANG et. al., "Activation of human B cells by phosphorothioate oligodeoxynucleotides", J. Clin. Invest., 98:1119-1129 (1996)		

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	6	of	9				

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C100	LIU et. al., "Promoter targeting by adenovirus E1a through interaction with different cellular DNA-binding domains", <i>Nature</i> , 368:520-5, 1994		
*C101	LOKE et. al., "Delivery of c-myc Antisense phosphorothioate oligodeoxynucleotides to hematopoietic cells in culture by liposome fusion: specific reduction in c-myc protein expression correlates with inhibition of cell growth and DNA synthesis", <i>Current Topics in Microbiology and Immunology</i> , 141:282-289 (1988)		
*C102	MACFARLANE, D.E. and MANZEL, L., "Antagonism of immunostimulatory CpG-oligodeoxynucleotides by quinacrine, chloroquine, and structurally related compounds", <i>J Immunol</i> 160(3):1122-31, 1998		
*C103	MANZEL, L. and MACFARLANE, D.E., "Lack of immune stimulation by immobilized CpG-oligodeoxynucleotide", <i>Antisense & Nucleic Acid Drug Development</i> , 459-464, 1999		
*C104	MASTRANGELO et. al., "Gene therapy for human cancer: an essay for clinicians", <i>Seminars in Oncology</i> , 23(1):4-21, Feb 1996		
*C105	MATSON, S. and Krieg A.M., "Nonspecific suppression of [³ H]thymidine incorporation by "control" oligonucleotides", <i>Antisense Res Dev</i> 2(4):325-30, Winter 1992		
*C106	MATSUKURA et. al., "Regulation of viral expression of human immunodeficiency virus in vitro by an antisense phosphorothioate oligodeoxynucleotide against rev (art/trs) in chronically infected cells", <i>Proc. Natl. Acad. Sci USA</i> , 86:4244-4248 (1989)		
*C107	MESSINA et. al., "The influence of DNA structure on the in vitro stimulation of murine lymphocytes by natural and synthetic polynucleotide antigens", <i>Cellular Immunology</i> , 147(1):148-157, 1993		
*C108	MESSINA et. al., "Stimulation of in vitro murine lymphocyte proliferation of bacterial DNA", <i>J. Immunol.</i> , 147(6):1759-1764, (1991)		
*C109	MONIA et. al., "Selective inhibition of mutant Ha-ras mRNA expression by antisense oligonucleotides", <i>J. Biol. Chem.</i> , 267(28):19954-19962 (1992)		
*C110	MOTTRAM et. al., "A novel CDC2-related protein kinase from <i>Leishmania mexicana</i> , LmmCRK1, is post-translationally regulated during the life cycle", <i>J. Biol. Chem.</i> 268:28, 21044-21052 (October 1993)		
*C111	New England BIOLABS 1988-1989 Catalog		
*C112	NYCE and Metzger, "DNA antisense therapy for asthma in an animal model", <i>Nature</i> 385:721-725, 1997		
*C113	O'NEILL et. al., "Isoprinostine in the Treatment of Genital Warts", <i>Cancer Detection and Prevention</i> , 12:497-501 (1988)		
*C114	PACA-UCCARALERTKUN et. al., "In vitro selection of DNA elements highly responsive to the human T-cell lymphotropic virus Type I transcriptional activator, tax", <i>Mol. Cell. Biol.</i> 14(1):456-62, 1994		
*C115	PISETSKY D., "The immunologic properties of DNA", <i>J Immunol</i> 156(2):421-3, 1996		
*C116	PISETSKY, D., "Immunologic consequences of nucleic acid therapy", <i>Antisense Research and Development</i> , 5(3):219-225 (1995)		
*C117	PISETSKY, D., "Stimulation of in vitro proliferation of murine lymphocytes by synthetic oligodeoxynucleotides", <i>Molecular Biology Repairs</i> , 18:217-221, (1993)		
*C118	POTTRATZ et. al., "17 β -estradiol inhibits expression of human interleukin-6 promoter-reporter constructs by a receptor-dependent mechanism", <i>J. Clin. Invest.</i> , 93(3):944-50, 1994		
*C119	QUDDUS, J. et. al., "Treating activated CD4 ⁺ T cells with either of two distinct DNA methyltransferase inhibitors, 5-azacytidine or procainamide, is sufficient to cause a lupus-like disease in syngeneic mice", <i>J. Clin. Invest.</i> , 92(1):38-53 (1993)		
*C120	RAZ et. al., "Preferential induction of a Th ₁ immune response and inhibition of specific IgE antibody formation by plasmid DNA immunization", <i>Proc Natl Acad Sci USA</i> 93(10):5141-5, (1996)		
*C121	REN et. al., <i>Zhonghua Zhong Zazhi</i> 16(4):247-50, 1995 HCAPLUS (198874) ABSTRACT		
*C122	RICHARDSON et. al., "Phenotypic and functional similarities between 5-azacytidine-treated T cells and a T cell subset in patients with active systemic lupus erythematosus", <i>Arthritis Rheum</i> , 35(6):647-62, 1992		
*C123	ROJANASAKUL, Y., "Antisense oligonucleotide therapeutics: drug delivery and targeting", <i>Adv. Drug. Delivery</i> , 18:115-131, 1996		
*C124	ROMAN, M. et. al., "Immunostimulatory DNA sequences function as T helper-1-promoter adjuvants", <i>Nat Med</i> 3(8):849-54, (1997)		
*C125	ROYALL et. al., "Evaluation of 2',7'-dichlorofluorescein and dihydrohodamine 123 as fluorescent probes for intracellular H ₂ O ₂ in cultured endothelial cells", <i>Arch. Biochem. Biophys.</i> , 302(2):348-55, 1993		
*C126	SATO et. al., "Immunostimulatory DNA sequences necessary for effective intradermal gene immunization", <i>Science</i> , 273:352-354, 1996		
*C127	SCHNELL et. al., "Identification and characterization of a <i>Saccharomyces cerevisiae</i> gene (PARI) conferring resistance to iron chelators", <i>Eur. J. Biochem.</i> , 200:487-493		

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	7	of	9				

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C128	SCHWARTZ, D.A. et. al., "Endotoxin responsiveness and grain dust-induced inflammation in the lower respiratory tract", Am J Physiol 267(5 Pt 1):L609-17, 1994		
*C129	SCHWARTZ, D.A. et. al., "The role of endotoxin in grain dust-induced lung disease", Am J Respir Crit Care Med 152(2):603-8, 1995		
*C130	SCHWARTZ et. al., "CpG motifs in bacterial DNA cause inflammation in the lower respiratory tract", J Clin Invest 100(1):68-73, (1997)		
*C131	SEED et. al., "A simple phase-extraction assay for chloramphenicol acyltransferase activity", Gene 67(2):271-7, 1988		
*C132	SHENG et. al., "Membrane depolarization and calcium induce c-fos transcription via phosphorylation of transcription factor CREB", Neuron 4(4):571-82, 1990		
*C133	SHIRAKAWA et. al., "The inverse association between tuberculin responses and atopic disorder", Science 275(5296):77-9, (1997)		
*C134	SPARWASSER et. al., "Macrophages sense pathogens via DNA motifs: induction of tumor necrosis factor- α -mediated shock", Eur J Immunol 27(7):1671-9, Jul 1997		
*C135	STEIN et. al., "Oligodeoxynucleotides as inhibitors of gene expression: A review", Cancer Research, 48:2659-2668, 1988		
*C136	STULL et. al., "Antigene, ribozyme and aptamer nucleic acid drugs: progress and prospects", Pharmaceutical Res., 12(4):465-483, 1995		
*C137	SUBRAMANIAN et. al., "Theoretical considerations on the "spine of hydration" in the minor groove of d(CGCGAATTCGCG)•d(GCGCTTAAGCGC):Monte Carlo computer stimulation", Proc. Nat'l. Acad. Sci. USA, 85(6):1836-1840, 1988		
*C138	TALMADGE et. al., "Immunomodulatory effects in mice of polyinosinic-polycytidylic acid complexed with poly-L-lysine and carboxymethylcellulose", Cancer Res. 45(3):1058-65, 1985		
*C139	TANAKA et. al., "An antisense oligonucleotide complementary to a sequence in Iy2b increases γ 2b germline transcripts, stimulates B cell DNA synthesis, and inhibits immunoglobulin secretion", J. Exp. Med., 175:597-607, 1992		
*C140	THOMPSON et. al., "Lymphokine-activated killer (LAK) cells V. 8-mercaptoguanosine as an IL-2 sparing agent in LAK generation", J. Immunol., 145(10):3524-31, 1990		
*C141	THORNE P.S., "Experimental grain dust atmospheres generated by wet and dry aerosolization techniques", Am J Ind Med 25(1):109-12, 1994		
*C142	TOKUNAGA T. et. al., "Synthetic oligonucleotides with particular base sequences from the cDNA encoding proteins of Mycobacterium bovis BCG inducer interferons and activate natural killer cells", Microbiol. Immunol., 36(1):55-66, 1992		
*C143	TOKUNAGA T. et. al., "A synthetic single-stranded Dna, poly(dG,dC), induces interferon- α/β and - γ , augments natural killer activity, and suppresses tumor growth", Jpn J Cancer Res 79(6):682-6, 1988		
*C144	TONKINSON et. al., "Patterns of intracellular compartmentalization, trafficking and acidification of 5'-fluorescein labeled phosphodiester and phosphorothioate oligodeoxynucleotides in HL60 cells", Nucleic Acids Res., 22(20):4268-75, 1994		
*C145	TSUKADA et. al., "Transcription factors NF-IL6 and CREB recognize a common essential site in the human prointerleukin 1 β gene", Mol. Cell. Biol., 14(11):7285-97, 1994		
*C146	UHLMANN et. al., "Antisense oligonucleotides: A new therapeutic principle", Chemical Reviews, 90(4):543-584, 1990		
*C147	WAGNER RW, "Gene inhibition using antisense oligodeoxynucleotides", Nature, 372:L333-335, 1994		
*C148	WALLACE et. al., "Oligonucleotide probes for the screening of recombinant DNA libraries", Methods in Enzymology, 152:432-442 (1987)		
*C149	WEISS, R., "Upping the antisense ante: Scientists bet on profits from reverse genetics", Science, 139:108-109, 1991		
*C150	WHALEN R., "DNA vaccines for emerging infectious diseases: What if?", Emerging Infectious Disease, 2(3):168-175, 1996		
*C151	WHITLEY et. al., "A striking similarity in the organization of the E-selectin and beta interferon gene promoters", Mol. Cell. Biol., 14(10):6464-75, 1994		
*C152	WILTROUT et. al., "Immunomodulation of natural killer activity of polyribonucleotides", J. Biol. Res. Mod., 4(5):512-7, 1985		
*C153	WU G.Y. et. al., "Receptor-mediated gene delivery and expression in vivo", J. Biol. Chem., 263:14621-14624, 1988		
*C154	WU-PONG S., "Oligonucleotides: Opportunities for drug and therapy research", Pharmaceutical Technology, 18:102-114, 1994		

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	8	of	9				

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C155	XIE et. al., "Induction of CREB activity via the surface Ig receptor of B cells", J. Immunol., 151(2):880-9, 1993		
*C156	YAMAMOTO et. al., "Lipofection of synthetic oligodeoxyribonucleotide having a palindromic sequence of AACGTT to murine splenocytes enhances interferon production and natural killer activity", Microbiol. Immunol., 38(10):831-836, 1994		
*C157	YAMAMOTO S. et. al., "DNA from bacteria, but not from vertebrates, induces interferons, activates natural killer cells and inhibits tumor growth", Microbiol Immunol 36(9):983-97, 1992		
*C158	YAMAMOTO S. et. al., "In vitro augmentation of natural killer cell activity and production of interferon- α/β and - γ with deoxyribonucleic acid fraction from Mycobacterium bovis BCG", Jpn J Cancer Res 79:866-73, Jul 1988		
*C159	YAMAMOTO S. et. al., "Unique palindromic sequences in synthetic oligonucleotides are required to induce INF and augment INF-mediated natural killer activity", J. Immunol., Vol. 148(12):4072-4076, 1992		
*C160	YAMAMOTO S., "II. Mode of action of oligonucleotide fraction extracted from mycobacterium bovis BCG", Kekkaku, 69(9):571-4 (29-32), 1994		
*C161	YAMAMOTO T. et. al., "Ability of oligonucleotides with certain palindromes to induce interferon production and augment natural killer cell activity is associated with their base length", Antisense Res. and Devel., 4(2):119-123, 1994		
*C162	YAMAMOTO T. et. al., "Synthetic oligonucleotides with certain palindromes stimulate interferon production of human peripheral blood lymphocytes", Jpn. J. Cancer Res., 85:775-779, 1994		
*C163	YI, Ae-Kyung et. al., "Rapid immune activation by CpG motifs in bacterial DNA", J Immunol, 157:5394-5402, 1996		
*C164	YI, A-K et. al., "IFN- γ promotes IL-6 and IgM secretion in response to CpG motifs in bacterial DNA and oligodeoxynucleotides", J Immunol 156(2):558-64, 1996		
*C165	ZHAO, Q. et. al., "Stage specific oligonucleotide uptake in murine bone marrow B-cell precursors", Blood 84(11):3660-6, 1994		
*C166	ZHAO, Q. et. al., "Comparison of cellular binding and uptake of antisense phosphodiester, phosphorothioate, and mixed phosphorothioate and methylphosphonate oligonucleotides", Antisense Res Dev 3(1):53-66, Spring 1993		
*C167	Antiviral Agents Bulletin, 5(6):161-163), June 1992		
*C168	AGRAWAL, S. et. al., "Pharmacokinetics of Antisense Oligonucleotides", Clin. Pharmacokinet., 1995, Pages 7-16, Vol. 28, No. 1		
*C169	AGRAWAL, S., "Antisense oligonucleotides: towards clinical trials", TIBTECH, October 1996, Pages 376-387, Vol. 14, Elsevier Trends Journals		
*C170	AGRAWAL, S. et. al., "Toxicologic Effects of an Oligodeoxynucleotide Phosphorothioate and Its Analogs Following Intravenous Administration in Rats", Antisense & Nucleic Acid Drug Development, 1997, Pages 575-584, Vol. 7, Mary Ann Liebert, Inc.		
*C171	BENIMETSKAYA, L. et. al., "Formation of a G-tetrad and higher order structures correlates with biological activity of the RelA (NF- κ B p65) 'antisense' oligodeoxynucleotide", Nucleic Acids Research, 1997, Pages 2648-2656, Vol. 25, No. 13, Oxford University Press		
*C172	BURGESS, T.L. et. al., "The antiproliferative activity of c-myc and c-myc antisense oligonucleotides in smooth muscle cells is caused by a nonantisense mechanism", Proc. Natl. Acad. Sci. USA, April 1995, Pages 4051-4055, Vol. 92		
*C173	HERTL, M. et. al., "Inhibition of Interferon- γ -Induced Intercellular Adhesion Molecule-1 Expression on Human Keratinocytes by Phosphorothioate Antisense Oligodeoxynucleotides is the Consequence of Antisense-Specific and Antisense-Non-Specific Effects", The Journal of Investigative Dermatology, May 1995, Pages 813-817, Vol. 104, No. 5, The Society for Investigative Dermatology, Inc.		
*C174	LACOUR, J., "Clinical Trials Using Polyadenylic-Polyuridylic Acid as an Adjuvant to Surgery in Treating Different Human Tumors", Journal of Biological Response Modifiers, 1985, Pages 538-543, Vol. 4, Raven Press, New York		
*C175	LEDERMAN, S. et. al., "Polydeoxyguanine Motifs in a 12-mer Phosphorothioate Oligodeoxynucleotide Augment Binding of the v3 Loop of HIV-1 gp120 and Potency of HIV-1 Inhibition Independently of G-Tetrad Formation", Antisense & Nucleic Acid Drug Development, 1996, Pages 281-289, Vol. 6, Mary Ann Liebert, Inc.		
*C176	MALTESE, J.Y. et. al., "Sequence context of antisense RelA/NF- κ B phosphorothioates determines specificity", Nucleic Acids Research, 1995, Pages 1146-1151, Vol. 23, No. 7, Oxford University Press		
*C177	SANDS, H. et. al., "Biodistribution and Metabolism of Internally 3 H-Labeled Oligonucleotides. I. Comparison of a Phosphodiester and a Phosphorothioate", Molecular Pharmacology, 1994, Pages 932-943, Vol. 45, The American Society for Pharmacology and Experimental Therapeutics		

FORM PTO-1449/A and B (Modified)				APPLICATION NO.: Not yet assigned		ATTY.'S DOCKET NO.: C01037.70049.US	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE: Herewith		CONFIRMATION NO.: Not yet assigned	
				APPLICANT: Hutcherson and Glover			
				GROUP ART UNIT: 1635		EXAMINER: Not yet assigned	
Sheet	9	of	9				

OTHER ART — NON PATENT LITERATURE DOCUMENTS (continued)

*C178	COSSUM et. al. "Pharmacokinetics of a ¹⁴ C-labeled phosphorothioate oligonucleotide, ISIS 2105, after intradermal administration of rats", J. of Pharm. and Exper. Therapeutics, 269(1):89-94 (1994)		
*C179	KRIEG et. al., "A role for endogenous retroviral sequences in the regulation of lymphocyte activation", J. of Immunol., 143(8):2448-2451 (1989)		
*C180	MCINTYRE et. al., "A sense phosphorothioate oligonucleotide directed to the initiation codon of transcription factor NF-KB p65 causes sequence-specific immune stimulation", Antisense Res. and Devel., 3:309-322 (1993)		
*C181	YASWEN et. al., "Effects of sequence of thioated oligonucleotides on cultured human mammary epithelial cells", Antisense Res. and Devel., 3:67-77 (1993)		
*C182	BRANDA, R.F. et. al., Immune Stimulation by an Antisense Oligomer Complementary to the rev Gene of HIV-1, Biochemical Pharmacology, 1993, 45, 2037-2043.		
*C183	GERWIRTZ, A.M. et. al., G.sub./S Transition in Normal Human T-Lymphocytes Requires the Nuclear Protein Encoded by c-myc, Science 1989, 245, 180-183.		
*C184	JACHIMCZAK, P. et. al., The effect of transforming growth factor-.beta.sub.2 -specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, J. Neurosurg, 1993, 78, 944-951.		
*C185	KLOC., M. et. al., Interleukin-2 Antisense Oligonucleotides Inhibit in vitro Functions of T Cells, Faseb J., 1991, 5, A973.		
*C186	KRIEG, A.M. et. al., A Role for Endogenous Retroviral Sequences in the Regulation of Lymphocyte Activation, J. Immun., 1989, 143, 2448-2451.		
*C187	KURAMOTO, E. et. al., Oligonucleotide Sequences Required for Natural Killer Cell Activation, Jpn. J. Cancer Res., 1992, 83, 1128-1131.		
*C188	MCINTYRE, K.W. et. al., A Sense Phosphorothioate Oligonucleotide Directed to the Initiation Codon of Transcription Factor NF-.kappa.K p65 Causes Sequence-Specific Immune Stimulation, Antisense Research and Development, 1993, 3, 309-322.		
*C189	PISETSKY, D.S. et. al., Stimulation of Murine Lymphocyte Proliferation by a Phosphorothioate Oligonucleotide with Antisense Activity for Herpes Simplex Virus, Life Sciences, 1994, 54, 101-107.		
*C190	RODGERS, K.E. et. al., An international journal concerned with the effects of chemicals on living systems, Toxicology, 1988, 54 241-253.		
*C191	RODGERS, K.E. et. al., Investigations into the Mechanism of Immunosuppression Caused by Acute Treatment with O,O,S-Trimethyl Phosphorothioate: Generation of Suppression Macrophages from Treated Animals, Toxicology and Applied Pharmacology, 1987, 88, 270-281.		
*C192	ALLISON, A. et. al. Molecular Immunology, vol. 28 .sup.# 3 ('91) pp. 279-284.		
*C193	IVERSON, P., Anti-Cancer Drug Design, vol. 6 ('91) pp. 531-538.		
*C194	MOJCIK, C., et. al. Clin. Immunol. & Immuno path., vol. 67 .sup.# 2 ('93) pp. 130-136.		
*C195	COWSERT, L., et. al., Antimicrobial Agents & Chemth., vol. 37.sup.# 2 (Feb. 1993) pp. 171-177.		
*C196	GURA, T., Science, vol. 270 (Oct. 27, 1995) 575-7.		
*C197	JAMES, S. et. al., The J. of Immunol., vol. 140(8) (Apr. 15, 1988) 2753-7.		
*C198	MONIA, B. et. al., The J. of Biol. Chem. 267(28) (Oct. 5, 1992) 19954-62.		
*C199	BRANCH, A. D., TIBS 23, pp. 45-50, Feb. 1998.		

EXAMINER	DATE CONSIDERED
----------	-----------------

†EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 09/009,634 filed 01/20/98 and now pending which claims priority to 08/712,135, filed September 11, 1996, now U.S. Patent No. 5,723,335, issued March 3, 1998, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).